

Application Number: 09/509,377
Amended claims. Clean version

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Date: March 11, 2005
Enclosure No. 2

I claim:

1. An endoscope with disposable cartridges for the invagination of endoscopic tube, comprising:

- 5 o an endoscopic tube (3) having a distal part with a guided distal end;
- o a disposable cartridge located on the distal part of the endoscopic tube (3) and comprising an invaginator of the endoscopic tube, which invaginator is an eversible tube with an uneverted end (7) joined with the endoscopic tube (3), and an uneverted part of invaginator formed by pleats into a compact hollow cylinder (23), having a gap (25) with the distal part of the endoscopic tube (3).
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2. The endoscope according to claim 1, wherein the cylinder (23) of the invaginator comprises narrowings (24) of its external diameter and widenings (24) of its internal diameter.

15 3. The endoscope according to claim 1, wherein the cartridge comprises a shell (22), which contains the cylinder (23) of the invaginator.

20 4. The endoscope according to claim 1, wherein the cartridge comprises a preservative (26) of the distal part of the endoscopic tube (3), which preservative is united with a tip (6) of the endoscopic tube (3) and comprises areas (28) for the hermetic fixation to the endoscopic tube (3).

5. The endoscope according to claim 4, wherein the tip (6) comprises a protective glass (33).

25 6. The endoscope according to claim 5, wherein the tip (6) comprises a channel (32) for inflation of the intestines and prevention of ingress of intestinal contents under the protective glass (33).

7. The endoscope according to any of claims 4 to 6, wherein the endoscopic tube (3) comprises areas (28) for the hermetic fixation of the distal preservative (26) united with the tip (6).

30 8. The endoscope according to any of claims 1 to 6, wherein the endoscopic tube (3) comprises internal transverse pleats (48) of its external cover.

35 9. The endoscope according to any of claims 1 to 6, further comprising a mechanism (53) for introduction of the endoscopic tube (3) into the everted part of invaginator, which mechanism comprises a hermetic cavity (60), limited by a cylinder (56), a piston (57), an elastic tube (59) and is connected to fluid pressure.

40 10. The endoscope according to any of claims 1 to 6, wherein the endoscopic tube (3) comprises distal drives of traction lines (40, 41), bending the distal end of the endoscopic tube (3), which drives comprise executing cylinder-piston units.

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11. The endoscope according to any of claims 1 to 6, wherein the endoscopic tube (3) comprises a biopsy channel, connected to fluid pressure and biopsy forceps (63), which are a flexible hermetic tube with a piston (66) of the biopsy channel on the distal end of said tube.
- 5 12. The endoscope according to claim 11, wherein the biopsy forceps (63) comprise an intensifier (71) of a traction line, which intensifier comprises an executing cylinder-piston unit, located on the distal end of the hermetic tube and of the traction line.

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Table No. 2. Localization of support for amended claims.

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Enclosure No. 3

Localization of support for amended claims in the materials of the present application.

Table No. 2.

| No. of claim and its subject matters | In the PCT/LV88/00008 (English translation) | In 09/509,377, as amended on March 11, 2005 |
|---|---|---|
| Claim 1. An endoscope with disposable cartridges for the invagination of endoscopic tube, comprising: <ul style="list-style-type: none"> • an endoscopic tube (3) having a distal part with a guided distal end; • a disposable cartridge located on the distal part of the endoscopic tube (3) and comprising an invaginator of the endoscopic tube, which invaginator is an eversible tube with an unverted end (7) joined with the endoscopic tube (3), and an unverted part of invaginator formed by pleats into a compact hollow cylinder (23), having a gap (25) with the distal part of the endoscopic tube (3). | Fig. 2a, 2c, 3a, 3c. page 4, lines 30-31 Fig. 1b page 3, lines 21-22, Fig. 1e, elements 7, 29, 3 page 3, lines 17-18, 23-26; page 7, lines 38, 40; Fig. 1c, 1e, 1f, elements 23, 25, 3 | Fig. 2a, 2c, 3a, 3c. page 4, lines 32-33 Fig. 1b page 3, lines 21-22, Fig. 1e, elements 7, 29, 3 page 3, lines 22-23, 28-31; page 7, lines 35, 37; Fig. 1c, 1e, 1f, elements 23, 25, 3 |
| Claim 2. The endoscope according to claim 1, wherein the cylinder (23) of the invaginator comprises narrowings (24) of its external diameter and widenings (24) of its internal diameter. | page 3, lines 18-19; page 5, lines 8-9; page 7, line 39; page 9, lines 12-13; Fig. 1c, 1e, 1f elements 23, 24. | page 3, lines 33-34; page 5, line 11; page 7, line 38; Fig. 1c, 1e, 1f elements 23, 24. |
| Claim 3. The endoscope according to claim 1, wherein the cartridge comprises a shell (22), which contains the cylinder (23) of the invaginator. | page 3, lines 14-19; page 8, lines 8-12; Fig. 1c, 1e, 1f elements 22, 23. | page 3, lines 18-23; page 5, lines 8-10; Fig. 1b, 1c, 1d, 1e, 1f elements 22, 23. |
| Claim 4. The endoscope according to claim 1, wherein the cartridge comprises a preservative (26) of the distal part of the endoscopic tube (3), which preservative is united with a tip (6) of the endoscopic tube (3) and comprises areas (28) for the hermetic fixation to the endoscopic tube (3). | page 3, lines 21-23; page 5, lines 15-17; page 7, lines 22, 41, 43; page 9, lines 15-17; Fig. 1c, 1d, 1e, 1f elements 26, 6, 28 | page 3, lines 26-28; page 5, lines 12-13; page 7 lines 22, 38, 40; Fig. 1c, 1d, 1e, 1f elements 26, 6, 28 |
| Claim 5. The endoscope according to claim 4, wherein the tip (6) comprises a protective glass (33). | page 3, line 22; page 8, line 5; page 9, lines 16-17; Fig. 1f, elements 33 and 6. | page 3, line 27; page 8, line 3; Fig. 1c, 1f, elements 33 and 6. |
| Claim 6. The endoscope according to claim 5, wherein the tip (6) comprises a channel (32) for inflation of the intestines and prevention of ingress of intestinal contents under the protective glass (33). | page 3, lines 22-23; page 5, line 15-16; page 6, lines 11-13; page 9, lines 15-16; Fig. 1f, elements 32 and 6. | page 3, line 27; page 5, lines 21-22; page 6, lines 12-14; page 8, line 2; Fig. 1f, elements 32 and 6. |
| Claim 7. The endoscope according to any of claims 4 to 6, wherein the endoscopic tube (3) comprises areas (28) for the hermetic fixation of the distal preservative (26) united with the tip (6). | page 4, lines 15-16; page 5, lines 9-11; page 7, line 43; page 9, lines 28-29; Fig. 2c, elements 3, 28. | page 4, line 16-17; page 5, lines 12-13; page 7, line 40; Fig. 1c, 1d, 1e, 1f elements 3, 28. |

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| <p>Claim 8. The endoscope according to any of claims 1 to 6, wherein the endoscopic tube (3) comprises internal transverse pleats (48) of its external cover.</p> | <p>page 4, line 13; page 5, lines 28-29; page 9, line 26; Fig. 2c, 3c, elements 3, 48</p> | <p>page 4, line 14; page 5, lines 29-30; page 8, line 18; Fig. 2c, 3c, elements 3, 48</p> |
| <p>Claim 9. The endoscope according to any of claims 1 to 6, further comprising a mechanism (53) for introduction of the endoscopic tube (3) into the everted part of invaginator, which mechanism comprises a hermetic cavity (60), limited by a cylinder (56), a piston (57), an elastic tube (59) and is connected to fluid pressure.</p> | <p>page 3, lines 28-30; page 5, lines 33-34; page 8, lines 25, 28-32; page 10, lines 6-8; Fig. 4a, 4c, elements 53, 56, 57, 59, 60, 3.</p> | <p>page 3, lines 32-34; page 5, lines 35-38; page 8, lines 23, 26-30; Fig. 4a, 4c, elements 53, 56, 57, 59, 60, 3.</p> |
| <p>Claim 10. The endoscope according to any of claims 1 to 6, wherein the endoscopic tube (3) comprises distal drives of traction lines (40, 41), bending the distal end of the endoscopic tube (3), which drives comprise executing cylinder-piston units.</p> | <p>page 4, lines 2-3; page 10, lines 16-17</p> | <p>page 4, lines 2-3;</p> |
| <p>Claim 11. The endoscope according to any of claims 1 to 6, wherein the endoscopic tube (3) comprises a biopsy channel, connected to fluid pressure and biopsy forceps (63), which are a flexible hermetic tube with a piston (66) of the biopsy channel on the distal end of said tube.</p> | <p>page 4, lines 20-23; page 5, lines 36-37; page 8, lines 35-40; page 9, lines 30-33; Fig. 4d, elements 63-68.</p> | <p>page 4, lines 21-24; page 6, lines 37-38; Fig. 4d, elements 63-68.</p> |
| <p>Claim 12. The endoscope according to claim 11, wherein the biopsy forceps (63) comprise an intensifier (71) of a traction line, which intensifier comprises an executing cylinder-piston unit, located on the distal end of the hermetic tube and of the traction line.</p> | <p>page 4, lines 25-27; page 9, lines 34-37; Fig. 4d, elements 63, 69.</p> | <p>page 4, lines 26-28; Fig. 4d, elements 63, 69, 71.</p> |